# Arizona's ESRI K12 School Agreement

Use ArcGIS Online (free to all) without a subscription

or

ArcGIS Desktop (Advanced) with all extensions

ArcGIS Online Subscription

(Requires registration with the Arizona license coordinator, Mark Manone – NAU)

This applies to all computers in the school and teachers' computers at home.



Teachers are overloaded with increased class sizes and with the Common Core standards. You can help them start using GIS in their classroom.

# Be a Geomentor

Not a Tormentor



A GeoMentor! Not a Dementor



## What is a Geomentor?

A GeoMentor "adopts" a school, class, or club and supports the educator/s in working with youth. Using tools of geography (such as maps and globes, atlases, charts, imagery, and field work), the GeoMentor helps the educator and youth develop skills in geographic thinking.

## Who can be a GeoMentor?

GeoMentors can be anyone who uses geography, recognizes the ways in which geography matters to us all, and has an interest in helping young people, including: GIS users, Geologists, Hydrologists, Surveyors, and Cartographers.

# **How Can You Help?**

- Teach a teacher basic ArcGIS.
- Help teach a class.
- Locate and acquire data.
- Format data for use in ArcGIS Desktop
- Prepare data for use in ArcGIS Online.
- Phone tech support.
- Develop a lesson plan.
- Plot maps created by the school or group.



Pair up with a partner; you will work together to solve a problem

#### **Problem Statement**

You have a tank of water, a container that is calibrated to hold 5 cups, and a container that is calibrated to hold 3 cups. Create a step-by-step procedure to produce exactly 4 cups in the larger container.

5 3

# Learning Styles

- Chalk & Talk
- Read 'til you eyes glaze over
- Inquiry-based learning

# Inquiry – Based Leaning

- An old adage states: "Tell me and I forget, show me and I remember, involve me and I understand."
- Inquiry-based learning covers a range of approaches to learning and teaching,

including:

- > Field-work
- Case studies
- Investigations
- Individual and group projects
- Research projects



# The Purpose of Education

#### Mortimer Adler

- > the development of citizenship,
- personal growth or self-improvement, and
- occupational preparation.

#### Noam Chomsky

Education is really aimed at helping students get to the point where they can learn on their own..."

#### • Eleanor Roosevelt

...the function of education is to give children a desire to learn and to teach them how to use their minds and where to go to acquire facts when their curiosity is aroused

## The U S Workforce

(Robert Reich, "The Work of Nations")

- Routine production services
- In-person services
- Symbolic-analytic services

# Routine production services

- Automation
- Globalization
- Reduced role
- Minimal training required

- Shrinking income
- Exodus to in-person services

# Routine production services









# In-person services

- Automation
- Reduced demand
- Competition from routine production sector

Declining wages

# In-person services







# Symbolic- analytical services

- Globalization
- Growing demand
- Increasing education needs
- Highly mobile

- Increasing income
- Crossover training difficult
- Three categories
  - > Problem identifiers
  - Problem solvers
  - Brokers (project managers)

### U.S. adults lag in reading, math skills

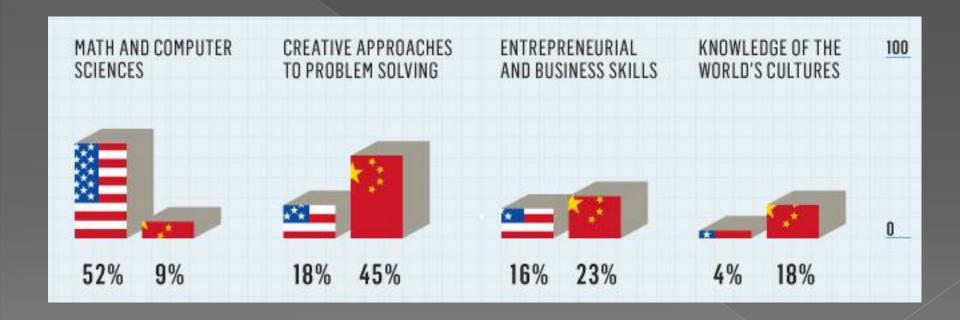
Adults in Japan and Finland scored highest in an international test measuring life skills such as reading, math and problem solving, while those in the United States scored below average.

READING SKILLS		MATH SKILL	MATH SKILLS		PROBLEM SOLVING	
1. Japan	296	1. Japan	288	1. Japan	294	
2. Finland	288	2. Finland	282	2. Finland	289	
3. Netherlands	284	3. Flanders- Belgium	280	3. Australia	289	
4. Australia	280	4. Netherlands	A PARAMETER STATE OF THE STATE	4. Sweden	288	
5. Sweden	279	5. Sweden	279	5. Norway	286	
Average	273	Average	269	Average	283	
16. U.S.	270	21. U.S.	253	17. U.S.	277	

NOTE: Tests scored on a 500-point scale. U.S. scores are based on nationally representative sample of 5,000 adults between 16 and 65 years old.

## Foundation Skills vs Analytical Skills

#### USA vs China



# Sign up, help out, have fun!

